

**Notice of Allowability**

Application No.

10/822,130

Examiner

David Q. Nguyen

Applicant(s)

CHO ET AL.

Art Unit

2681

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/09/04.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1-23 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1,8 and 15, the closest prior arts, Wilborn et al. (US 2002/0138229 A1) and Wilborn et al. (US 6,529,850 B2) discloses a velocity estimator using a level crossing rate comprising a power calculator for calculating power values of a signal received from a mobile terminal; a level crossing counter for counting a level crossing frequency and a velocity calculator for calculating a velocity estimation value of the mobile terminal using the velocity crossing frequency (see figs. 6-9 and their descriptions of Wilborn et al., US 6,529,850 B2). Wilborn et al. (US 2002/0138229 A1) and Wilborn et al. (US 6,529,850 B2), either singularly or in combination, fail to anticipate or render obvious that an interpolator for interpolating the mean power values according to a predetermined interpolation ratio L; a root mean square calculator for calculating a root mean square value using an output of the interpolator, in combination with all other limitations in the claim(s) as defined by applicant.

Claims 2-7 depend on claim 1. Therefore, they are allowable.

Claims 9-14 depend on claim 8. Therefore, they are allowable.

Claims 16-23 depend on claim 15. Therefore, they are allowable

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ling et al. (US 6,377,607 B1) teaches system and method for performing accurate demodulation of turbo-encoded signals via pilot assisted coherent demodulation.

Lomp et al. (US 6,272,168 B1) teaches code sequence generator in a CDMA.

Black et al. (US 6,246,885 B1) teaches digital FM audio processing in a dual-mode communication system.

Kumar (US 5,825,807) teaches system and method for multiplexing a spread spectrum communication system.

Kumar (US 5,748,677) teaches reference signal communication method and system.


Sih et al. (US 2005/0020213A1) teaches velocity responsive filtering for pilot signal reception.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Q. Nguyen whose telephone number is 571-272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH H. FEILD can be reached on (571)272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David Nguyen

  
**JOSEPH FEILD**  
**SUPERVISORY PATENT EXAMINER**